

# Physics Education Report

## CIP 40.0801

Cochise, Pima, SC

### Physics, General

CIP 2010: A general program that focuses on the scientific study of matter and energy, and the formulation and testing of the laws governing the behavior of the matter-energy continuum. Includes instruction in classical and modern physics, electricity and magnetism, thermodynamics, mechanics, wave properties, nuclear processes, relativity and quantum theory, quantitative methods, and laboratory methods

### Target Occupations

<b>291</b> <b>Jobs (2016)</b> 33% above National average		<b>4.4%</b> <b>% Change (2017-2022)</b> Nation: 4.5%		<b>\$48.56/hr</b> <b>Median Hourly Earnings</b> Nation: \$58.61/hr	
Occupation	2017 Jobs	Annual Openings	Median Hourly Earnings	Growth (2017 - 2022)	Location Quotient (2017)
Natural Sciences Managers	205	6	\$52.29/hr	4.88%	1.20
Physicists	90	2	\$40.12/hr	3.33%	1.78

\* Target Occupations - Settings

<b>Occupational Programs</b>						
38.00	967.00	9.00				
Programs (2015)	Completions (2015)	Openings (2015)				
CIP Code	Program	Completions (2011)	(2012)	(2013)	(2014)	(2015)
27.0101	Mathematics, General	115	118	125	108	126
30.1901	Nutrition Sciences	104	117	111	121	119
40.0807	Optics/Optical Sciences	108	100	100	87	99
26.0101	Biology/Biological Sciences, General	71	71	85	73	89
26.0502	Microbiology, General	74	72	53	80	76
26.1501	Neuroscience	6	9	24	42	72
40.0501	Chemistry, General	80	67	91	69	66
26.0202	Biochemistry	14	24	51	47	65
40.0601	Geology/Earth Science, General	37	43	49	50	48
26.1310	Ecology and Evolutionary Biology	47	44	53	47	48
40.0801	Physics, General	43	49	46	35	39
40.0201	Astronomy	21	16	18	18	19
40.0605	Hydrology and Water Resources Science	12	19	23	14	16
26.1201	Biotechnology	2	1	6	14	15
26.1001	Pharmacology	5	10	8	7	12
40.0401	Atmospheric Sciences and Meteorology, General	8	4	12	4	10
27.0301	Applied Mathematics, General	9	13	11	21	10
27.0501	Statistics, General	3	9	12	8	10
40.0203	Planetary Astronomy and Science	3	4	4	2	7
26.0702	Entomology	3	5	5	4	6
26.0305	Plant Pathology/Phytopathology	6	6	6	1	4
51.2205	Health/Medical Physics	0	0	1	4	3
40.0404	Meteorology	0	2	3	4	3
26.1102	Biostatistics	0	1	3	0	3
40.0699	Geological and Earth Sciences/Geosciences, Other	1	2	0	1	1
26.0503	Medical Microbiology and Bacteriology	0	0	0	0	1
30.1801	Natural Sciences	0	0	1	1	0
26.0804	Animal Genetics	0	0	0	0	0
26.0707	Animal Physiology	0	0	0	0	0
26.0508	Microbiology and Immunology	5	0	0	0	0
26.1401	Molecular Medicine	4	1	0	0	0
26.0401	Cell/Cellular Biology and Histology	0	0	0	0	0
26.0403	Anatomy	0	0	0	0	0
26.0701	Zoology/Animal Biology	0	0	0	0	0
26.1301	Ecology	0	0	0	0	0
26.0910	Pathology/Experimental Pathology	0	0	0	0	0
30.1001	Biopsychology	1	0	0	0	0
26.0499	Cell/Cellular Biology and Anatomical Sciences, Other	0	0	0	0	0





<b>Programs by Institution</b>				
<b>CIP Code</b>	<b>Title</b>	<b>Institution</b>	<b>Award Level</b>	<b>Completions (2015)</b>
26.0101	Biology/Biological Sciences, General	Tohono O'Odham Community College	Award of at least 1 but less than 2 academic years	3
26.0101	Biology/Biological Sciences, General	Cochise County Community College District	Associates degree	9
26.0101	Biology/Biological Sciences, General	Tohono O'Odham Community College	Associates degree	2
26.0101	Biology/Biological Sciences, General	Pima Community College	Associates degree	0
26.0101	Biology/Biological Sciences, General	University of Arizona	Bachelors degree	75
26.0101	Biology/Biological Sciences, General	University of Arizona	Masters degree	0
26.0202	Biochemistry	University of Arizona	Bachelors degree	61
26.0202	Biochemistry	University of Arizona	Masters degree	1
26.0202	Biochemistry	University of Arizona	Doctors degree	3
26.0305	Plant Pathology/Phytopathology	University of Arizona	Masters degree	3
26.0305	Plant Pathology/Phytopathology	University of Arizona	Doctors degree	1
26.0401	Cell/Cellular Biology and Histology	University of Arizona	Bachelors degree	0
26.0401	Cell/Cellular Biology and Histology	University of Arizona	Masters degree	0
26.0401	Cell/Cellular Biology and Histology	University of Arizona	Doctors degree	0
26.0403	Anatomy	University of Arizona	Masters degree	0
26.0403	Anatomy	University of Arizona	Doctors degree	0
26.0499	Cell/Cellular Biology and Anatomical Sciences, Other	University of Arizona	Masters degree	0
26.0499	Cell/Cellular Biology and Anatomical Sciences, Other	University of Arizona	Doctors degree	0
26.0502	Microbiology, General	University of Arizona	Bachelors degree	73
26.0502	Microbiology, General	University of Arizona	Masters degree	3
26.0502	Microbiology, General	University of Arizona	Doctors degree	0
26.0503	Medical Microbiology and Bacteriology	Pima Community College	Associates degree	0
26.0503	Medical Microbiology and Bacteriology	University of Arizona	Bachelors degree	0
26.0503	Medical Microbiology and Bacteriology	University of Arizona	Postbaccalaureate certificate	1
26.0503	Medical Microbiology and Bacteriology	University of Arizona	Masters degree	0
26.0503	Medical Microbiology and Bacteriology	University of Arizona	Doctors degree	0
26.0508	Microbiology and Immunology	University of Arizona	Doctors degree	0
26.0701	Zoology/Animal Biology	University of Arizona	Bachelors degree	0
26.0702	Entomology	University of Arizona	Masters degree	2

26.0702	Entomology	University of Arizona	Doctors degree	4
26.0707	Animal Physiology	University of Arizona	Bachelors degree	0
26.0707	Animal Physiology	University of Arizona	Masters degree	0
26.0707	Animal Physiology	University of Arizona	Doctors degree	0
26.0804	Animal Genetics	University of Arizona	Masters degree	0
26.0804	Animal Genetics	University of Arizona	Doctors degree	0
26.0910	Pathology/Experimental Pathology	University of Arizona	Masters degree	0
26.0910	Pathology/Experimental Pathology	University of Arizona	Doctors degree	0
26.1001	Pharmacology	University of Arizona	Masters degree	4
26.1001	Pharmacology	University of Arizona	Doctors degree	8
26.1102	Biostatistics	University of Arizona	Masters degree	3
26.1201	Biotechnology	Pima Community College	Award of at least 1 but less than 2 academic years	3
26.1201	Biotechnology	University of Arizona	Masters degree	12
26.1301	Ecology	University of Arizona	Bachelors degree	0
26.1301	Ecology	University of Arizona	Masters degree	0
26.1301	Ecology	University of Arizona	Doctors degree	0
26.1310	Ecology and Evolutionary Biology	University of Arizona	Bachelors degree	35
26.1310	Ecology and Evolutionary Biology	University of Arizona	Masters degree	9
26.1310	Ecology and Evolutionary Biology	University of Arizona	Doctors degree	4
26.1401	Molecular Medicine	University of Arizona	Masters degree	0
26.1401	Molecular Medicine	University of Arizona	Doctors degree	0
26.1501	Neuroscience	University of Arizona	Bachelors degree	69
26.1501	Neuroscience	University of Arizona	Masters degree	0
26.1501	Neuroscience	University of Arizona	Doctors degree	3
27.0101	Mathematics, General	Cochise County Community College District	Associates degree	3
27.0101	Mathematics, General	University of Arizona	Bachelors degree	110
27.0101	Mathematics, General	University of Arizona-South	Bachelors degree	2
27.0101	Mathematics, General	University of Arizona	Masters degree	2
27.0101	Mathematics, General	University of Arizona	Doctors degree	9
27.0301	Applied Mathematics, General	University of Arizona	Masters degree	6
27.0301	Applied Mathematics, General	University of Arizona	Doctors degree	4
27.0501	Statistics, General	University of Arizona	Postbaccalaureate certificate	3
27.0501	Statistics, General	University of Arizona	Masters degree	5
27.0501	Statistics, General	University of Arizona	Doctors degree	2
30.1001	Biopsychology	University of Arizona	Postbaccalaureate certificate	0
30.1801	Natural Sciences	University of Arizona	Bachelors degree	0
30.1901	Nutrition Sciences	University of Arizona	Bachelors degree	116
30.1901	Nutrition Sciences	University of Arizona	Masters degree	3

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30.1901	Nutrition Sciences	University of Arizona	Doctors degree	0
40.0201	Astronomy	University of Arizona	Bachelors degree	11
40.0201	Astronomy	University of Arizona	Masters degree	3
40.0201	Astronomy	University of Arizona	Doctors degree	5
40.0203	Planetary Astronomy and Science	University of Arizona	Masters degree	1
40.0203	Planetary Astronomy and Science	University of Arizona	Doctors degree	6
40.0401	Atmospheric Sciences and Meteorology, General	University of Arizona	Bachelors degree	0
40.0401	Atmospheric Sciences and Meteorology, General	University of Arizona	Masters degree	3
40.0401	Atmospheric Sciences and Meteorology, General	University of Arizona	Doctors degree	7
40.0404	Meteorology	University of Arizona	Masters degree	3
40.0404	Meteorology	University of Arizona	Doctors degree	0
40.0501	Chemistry, General	Cochise County Community College District	Associates degree	1
40.0501	Chemistry, General	University of Arizona	Bachelors degree	34
40.0501	Chemistry, General	University of Arizona	Masters degree	6
40.0501	Chemistry, General	University of Arizona	Doctors degree	25
40.0601	Geology/Earth Science, General	University of Arizona	Bachelors degree	37
40.0601	Geology/Earth Science, General	University of Arizona	Masters degree	2
40.0601	Geology/Earth Science, General	University of Arizona	Doctors degree	9
40.0605	Hydrology and Water Resources Science	University of Arizona	Bachelors degree	7
40.0605	Hydrology and Water Resources Science	University of Arizona	Masters degree	6
40.0605	Hydrology and Water Resources Science	University of Arizona	Doctors degree	3
40.0699	Geological and Earth Sciences/Geosciences, Other	University of Arizona	Masters degree	1
40.0801	Physics, General	Cochise County Community College District	Associates degree	1
40.0801	Physics, General	University of Arizona	Bachelors degree	24
40.0801	Physics, General	University of Arizona	Masters degree	6
40.0801	Physics, General	University of Arizona	Doctors degree	8
40.0807	Optics/Optical Sciences	University of Arizona	Bachelors degree	27
40.0807	Optics/Optical Sciences	University of Arizona	Postbaccalaureate certificate	5
40.0807	Optics/Optical Sciences	University of Arizona	Masters degree	37
40.0807	Optics/Optical Sciences	University of Arizona	Doctors degree	30
51.2205	Health/Medical Physics	University of Arizona	Masters degree	3

## Regional Completions by Award Level

	Award Level	Completions (2015)	Percent
●	Associates degree	1	2.6% 
●	Bachelors degree	24	61.5% 
●	Masters degree	6	15.4% 
●	Doctors degree	8	20.5% 
	Award of less than 1 academic year	0	0.0%
	Award of at least 1 but less than 2 academic years	0	0.0%
	Award of at least 2 but less than 4 academic years	0	0.0%
	Postbaccalaureate certificate	0	0.0%
	Post-masters certificate	0	0.0%

\* Regional Completions by Award Level - Settings

## Regional Completions by Institution

Institution	Certificates (2015)	Degrees (2015)	Total Completions (2015)
University of Arizona	0	38	38
Cochise County Community College District	0	1	1

\* Regional Completions by Institution - Settings

## Appendix A - Data Sources and Calculations

### Location Quotient

Location quotient (LQ) is a way of quantifying how concentrated a particular industry, cluster, occupation, or demographic group is in a region as compared to the nation. It can reveal what makes a particular region unique in comparison to the national average.

### Occupation Data

EMSI occupation employment data are based on final EMSI industry data and final EMSI staffing patterns. Wage estimates are based on Occupational Employment Statistics (QCEW and Non-QCEW Employees classes of worker) and the American Community Survey (Self-Employed and Extended Proprietors). Occupational wage estimates also affected by county-level EMSI earnings by industry.

### State Data Sources

This report uses state data from the following agencies: Arizona Department of Administration, Office of Employment and Population Statistics